Claims

What is claimed is:

1.   A system for associative processing comprising:

an icon generator;

an associative memory controller connected to the icon generator;

an associative processing unit connected to the associative memory controller; and

a memory connected to the associative memory controller.

2.   The system of claim 1, wherein the icon generator is connected to a key data input.

3.   The system of claim 2, wherein the icon generator converts a key into an icon that includes of an address and a confirmer.

4.   The system of claim 3, wherein the icon generator uses a polynomial code to convert the key into the icon.

5.   The system of claim 1, wherein the icon generator can create an icon having a plurality of lengths.

6.   The system of claim 1, wherein the associative processing unit is capable of an icon algebra.

5   7.   The system of claim 6, wherein the associative processing unit is capable of creating a first-second transform from a first transform and a second transform.

8.   The system of claim 1, further including a plurality of
10   icon generators connected to the associative memory controller.

9.   The system of claim 1, further including a plurality of associative processing unit connected to the associative memory controller.

15

10.   A system for associative processing comprising:

a transform generator having an input connected to a key data;
20   an associative memory controller receiving an icon from the transform generator; and
a memory connected to the associative memory controller.

11.   The system of claim 10, wherein the icon is a hash.

25

12.   The system of claim 10, wherein the transform generator includes a linear feedback shift register.

13.   The system of claim 10, wherein the transform generator includes an icon lookup table.

14.   The system of claim 10, wherein the associative memory controller compares a pair of confirmers to determine if a match has been found.

15.   The system of claim 10, further including an associative processing unit connected to the transform generator and the associative memory controller.

16.   The system of claim 15, wherein the associative processing unit combines a pair of transforms to form a new transform.

17.   The system of claim 15, wherein the associative processing unit removes a first transform from a second transform to form a new transform.